



# SEQUENCE LISTING

<110> Sundelin, Johan  
Scarborough, Robert M.

<120> Recombinant C140 Receptor, Its Agonists and Antagonists, and  
Nucleic Acids Encoding the Receptor

<130> 44481-5006-09-US

<140> US 10/643,627

<141> 2003-08-19

<150> US 10/127,691

<151> 2002-04-23

<150> US 08/097,938

<151> 1993-07-26

<150> US 08/390,301

<151> 1995-01-25

<150> US 08/474,414

<151> 1995-06-07

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<170> PatentIn Ver. 2.1

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<222> (232)..(1416)

<223> C140 receptor, genomic DNA and deduced protein  
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agagaatatt gtctgcaata ctctaatac atctgtctgt gttcatctga a atg ttc 237  
Met Phe

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Val Pro Val Glu Pro Gly Phe Ser Ile Asp Glu Phe Ser Ala Ser Ile			
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Lys Val Leu Ile Gly Phe Phe Tyr Gly Asn Met Tyr Cys Ser Ile Leu			
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Lys Gln Thr Ile Tyr Ile Pro Ala Leu Asn Ile Thr Thr Cys His Asp			
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Val Leu Pro Glu Glu Val Leu Val Gly Asp Met Phe Asn Tyr Phe Leu			
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Ser Leu Ala Ile Gly Val Phe Leu Phe Pro Ala Leu Leu Thr Ala Ser			
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 Ala Tyr Val Leu Met Ile Lys Thr Leu Arg Ser Ser Ala Met Asp Glu  
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cac tca gag aac aaa agg cag agg gct atc cga ctc atc atc acc gtg 1101  
 His Ser Glu Lys Lys Arg Gln Arg Ala Ile Arg Leu Ile Ile Thr Val  
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 Ala Arg Asn Ala Leu Leu Cys Arg Ser Val Arg Thr Val Asn Arg Met  
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Thr Cys His Asp Val Leu Pro Glu Gln Leu Leu Val Gly Asp Met Phe	
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 Arg Asp His Ala Lys Asn Ala Leu Leu Cys Arg Ser Val Arg Thr Val  
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Lys Gly Val Pro Val Glu Pro Gly Phe Ser Ile Asp Glu Phe Ser Ala



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 Arg Asp His Ala Lys Asn Ala Leu Leu Cys Arg Ser Val Arg Thr Val  
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Asn Asp Lys Tyr Glu Pro Phe Trp Glu Asp Glu Glu Lys Asn Glu Ser  
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Thr	Ser	Ser	Trp	Leu	Thr	Leu	Phe	Val	Pro	Ser	Val	Tyr	Thr	Gly	Val	100	105	110	
Phe	Val	Val	Ser	Leu	Pro	Leu	Asn	Ile	Met	Ala	Ile	Val	Val	Phe	Ile	115	120	125	
Leu	Lys	Met	Lys	Val	Lys	Lys	Pro	Ala	Val	Val	Tyr	Met	Leu	His	Leu	130	135	140	
Ala	Thr	Ala	Asp	Val	Leu	Phe	Val	Ser	Val	Leu	Pro	Phe	Lys	Ile	Ser	145	150	155	160
Tyr	Tyr	Phe	Ser	Gly	Ser	Asp	Trp	Gln	Phe	Gly	Ser	Glu	Leu	Cys	Arg	165	170	175	
Phe	Val	Thr	Ala	Ala	Phe	Tyr	Cys	Asn	Met	Tyr	Ala	Ser	Ile	Leu	Leu	180	185	190	
Met	Thr	Val	Ile	Ser	Ile	Asp	Arg	Phe	Leu	Ala	Val	Val	Tyr	Pro	Met	195	200	205	
Gln	Ser	Leu	Ser	Trp	Arg	Thr	Leu	Gly	Arg	Ala	Ser	Phe	Thr	Cys	Leu	210	215	220	
Ala	Ile	Trp	Ala	Leu	Ala	Ile	Ala	Gly	Val	Val	Pro	Leu	Val	Leu	Lys	225	230	235	240
Glu	Gln	Thr	Ile	Gln	Val	Pro	Gly	Leu	Asn	Ile	Thr	Thr	Cys	His	Asp	245	250	255	
Val	Leu	Asn	Glu	Thr	Leu	Leu	Glu	Gly	Tyr	Tyr	Ala	Tyr	Tyr	Phe	Ser	260	265	270	
Ala	Phe	Ser	Ala	Val	Phe	Phe	Phe	Val	Pro	Leu	Ile	Ile	Ser	Thr	Val	275	280	285	
Cys	Tyr	Val	Ser	Ile	Ile	Arg	Cys	Leu	Ser	Ser	Ser	Ala	Val	Ala	Asn	290	295	300	
Arg	Ser	Lys	Lys	Ser	Arg	Ala	Leu	Phe	Leu	Ser	Ala	Ala	Val	Phe	Cys	305	310	315	320
Ile	Phe	Ile	Ile	Cys	Phe	Gly	Pro	Thr	Asn	Val	Leu	Leu	Ile	Ala	His	325	330	335	
Tyr	Ser	Phe	Leu	Ser	His	Thr	Ser	Thr	Thr	Glu	Ala	Ala	Tyr	Phe	Ala	340	345	350	
Tyr	Leu	Leu	Cys	Val	Cys	Val	Ser	Ser	Ile	Ser	Ser	Cys	Ile	Asp	Pro	355	360	365	

Leu Ile Tyr Tyr Tyr Ala Ser Ser Glu Cys Gln Arg Tyr Val Tyr Ser  
370 375 380

Ile Leu Cys Cys Lys Glu Ser Ser Asp Pro Ser Ser Tyr Asn Ser Ser  
385 390 395 400

Gly Gln Leu Met Ala Ser Lys Met Asp Thr Cys Ser Ser Asn Leu Asn  
405 410 415

Asn Ser Ile Tyr Lys Lys Leu Leu Thr  
420 425

<210> 8

<211> 7

<212> PRT

<213> Mus musculus

<220>

<223> C140 receptor activation peptide

<400> 8

Arg Asn Asn Ser Lys Gly Arg  
1 5

<210> 9

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> VARIANT

<222> (1)

<223> Xaa at position 1 = 3-mercaptopropionic acid

<220>

<223> Description of Artificial Sequence: C140 receptor  
antagonist

<400> 9

Xaa Leu Leu Gly Lys  
1 5

<210> 10

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140  
antagonist

<220>

<221> VARIANT

<222> (1)  
 <223> Xaa at position 1 = 3-mercaptopropionic acid  
  
 <400> 10  
 Xaa Leu Ile Gly Arg  
   1                  5  
  
 <210> 11  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: C140 receptor  
           antagonist  
  
 <220>  
 <221> VARIANT  
 <222> (1)..(2)  
 <223> Xaa at position 1 = 3-mercaptopropionic acid; Xaa  
           at position 2 = cyclohexylalanine  
  
 <400> 11  
 Xaa Xaa Leu Lys Gly  
   1                  5  
  
 <210> 12  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: C140 receptor  
           antagonist  
  
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 <221> VARIANT  
 <222> (1)..(2)  
 <223> Xaa at position 1 = 3-mercaptopropionic acid; Xaa  
           at position 2 = cyclohexylalanine  
  
 <400> 12  
 Xaa Xaa Ile Gly Arg  
   1                  5  
  
 <210> 13  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: C140 receptor  
           antagonist

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<220>
<221> VARIANT
<222> (1)
<223> Xaa at position 1 = 3-mercaptopropionic acid

<400> 13
Xaa Leu Leu Gly Lys Lys
  1                      5

<210> 14
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: C140 receptor
      antagonist

<220>
<221> VARIANT
<222> (1)
<223> Xaa at position 1 = 3-mercaptopropionic acid

<400> 14
Xaa Leu Ile Gly Arg Lys
  1                      5

<210> 15
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: C140 receptor
      antagonist

<220>
<221> VARIANT
<222> (1)
<223> Xaa at position 1 = 3-mercaptopropionic acid

<400> 15
Xaa Leu Ile Gly Arg Lys Glu Thr Gln Pro
  1                      5              10

<210> 16
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: C140 receptor
      antagonist

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<220>  
 <221> VARIANT  
 <222> (1)  
 <223> Xaa at position 1 = 3-mercaptopropionic acid  
  
 <400> 16  
 Xaa Leu Leu Gly Lys Lys Asp Gly Thr Ser  
       1                  5                  10  
  
 <210> 17  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: C140 receptor  
       antagonist  
  
 <220>  
 <221> VARIANT  
 <222> (1)  
 <223> Xaa at position 1 = (n-pentyl) 2-N-Leu  
  
 <400> 17  
 Xaa Ile Gly Arg Lys  
       1                  5  
  
 <210> 18  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: C140 receptor  
       antagonist  
  
 <220>  
 <221> VARIANT  
 <222> (1)  
 <223> Xaa at position 1 = Me-N-(n-pentyl)  
  
 <400> 18  
 Xaa Leu Ile Gly Arg Lys  
       1                  5  
  
 <210> 19  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: C140 receptor  
       agonist/immunogen



<400> 19  
Ser Lys Gly Arg Ser Leu Ile Gly Arg Leu Glu Thr  
1 5 10

<210> 20  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist/immunogen

<400> 20  
Ile Ser Tyr His Leu His Gly Asn Asn Trp Val Tyr Gly Glu Ala Leu  
1 5 10 15

Cys

<210> 21  
<211> 31  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist/immunogen

<400> 21  
Gln Thr Ile Tyr Ile Pro Ala Leu Asn Ile Thr Thr Cys His Asp Val  
1 5 10 15

Leu Pro Glu Glu Val Leu Val Gly Asp Met Phe Asn Tyr Phe Leu  
20 25 30

<210> 22  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist/immunogen

<400> 22  
His Tyr Phe Leu Ile Lys Thr Gln Arg Gln Ser His Val Tyr Ala  
1 5 10 15

<210> 23  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 23  
Ser Leu Ile Gly Arg Leu  
1 5

<210> 24  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 24  
Ser Leu Ile Gly Arg Ala  
1 5

<210> 25  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 25  
Ser Leu Ile Gly Ala Leu  
1 5

<210> 26  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 26  
Ser Leu Ile Ala Arg Leu  
1 5

<210> 27  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 27  
Ser Leu Ala Gly Arg Leu  
1 5

<210> 28  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 28  
Ser Ala Ile Gly Arg Leu  
1 5

<210> 29  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 29  
Ala Leu Ile Gly Arg Leu  
1 5

<210> 30  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 30  
Ser Phe Phe Leu Arg Trp  
1 5

<210> 31  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor agonist

<400> 31

Arg Asn Asn Ser Ser Lys Gly Arg  
1 5

<210> 32

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor agonist

<400> 32

Ser Leu Ile Gly Arg Leu Glu Thr Gln Pro Pro Ile Thr  
1 5 10

<210> 33

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor agonist

<400> 33

Ser Leu Ile Gly Arg Leu Glu Thr Gln Pro Pro Ile  
1 5 10

<210> 34

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor agonist

<400> 34

Ser Leu Ile Gly Arg Leu Glu Thr Gln Pro Pro  
1 5 10

<210> 35

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor

agonist

<400> 35

Ser Leu Ile Gly Arg Leu Glu Thr Gln Pro  
1 5 10

<210> 36

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 36

Ser Leu Ile Gly Arg Leu Glu Thr Gln  
1 5

<210> 37

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 agonist

<400> 37

Ser Leu Ile Gly Arg Leu Glu Thr  
1 5

<210> 38

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 38

Ser Leu Ile Gly Arg Leu Glu  
1 5

<210> 39

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 39  
Ser Leu Ile Gly Arg Leu  
1 5

<210> 40  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 40  
Ser Leu Ile Gly Arg  
1 5

<210> 41  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 41  
Ser Leu Leu Gly Lys Val Asp Gly Thr Ser His Val Thr  
1 5 10

<210> 42  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 42  
Ser Leu Leu Gly Lys Val Asp Gly Thr Ser His Val  
1 5 10

<210> 43  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 43

Ser Leu Leu Gly Lys Val Asp Gly Thr Ser His  
1 5 10

<210> 44  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 44  
Ser Leu Leu Gly Lys Val Asp Gly Thr Ser  
1 5 10

<210> 45  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 45  
Ser Leu Leu Gly Lys Val Asp Gly Thr  
1 5

<210> 46  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 46  
Ser Leu Leu Gly Lys Val Asp Gly  
1 5

<210> 47  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 47  
Ser Leu Leu Gly Lys Val Asp

1 5

<210> 48  
 <211> 6  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: C140 receptor agonist

<400> 48  
 Ser Leu Leu Gly Lys Val  
 1 5

<210> 49  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: C140 receptor agonist

<400> 49  
 Ser Leu Leu Gly Lys  
 1 5

<210> 50  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: C140 receptor agonist

<220>  
 <221> VARIANT  
 <222> (2)  
 <223> Xaa at position 2 = cyclohexylalanine (Cha)

<400> 50  
 Ser Xaa Ile Gly Arg  
 1 5

<210> 51  
 <211> 5  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: C140 receptor



agonist

<220>  
<221> VARIANT  
<222> (2)  
<223> Xaa at position 2 = cyclohexylalanine (Cha)

<400> 51  
Ser Xaa Leu Gly Lys  
1 5

<210> 52  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<220>  
<221> VARIANT  
<222> (1)  
<223> Xaa at position 1 = 2,3-diamino propionic acid  
(2,3-diaP)

<400> 52  
Xaa Ile Gly Arg  
1

<210> 53  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<220>  
<221> VARIANT  
<222> (1)  
<223> Xaa at position 1 = 2,3-diamino propionic acid  
(2,3-diaP)

<400> 53  
Xaa Leu Leu Gly Lys  
1 5

<210> 54  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 54  
Ser Leu Leu Gly Lys Arg  
1 5

<210> 55  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<400> 55  
Ser Leu Ile Gly Arg Arg  
1 5

<210> 56  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<220>  
<221> VARIANT  
<222> (2)  
<223> Xaa at position 2= cyclohexylalanine (Cha)

<400> 56  
Ser Xaa Leu Gly Lys Lys  
1 5

<210> 57  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 agonist  
receptor

<220>  
<221> VARIANT  
<222> (2)  
<223> Xaa at position 2 = cyclohexylalanine (Cha)

<400> 57

Ser Xaa Ile Gly Arg Lys  
1 5

<210> 58  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<220>  
<221> VARIANT  
<222> (1)  
<223> Xaa at position 1 = 2,3-diamino propionic acid  
(2,3-diaP)

<400> 58  
Xaa Leu Ile Gly Arg Lys  
1 5

<210> 59  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: C140 receptor  
agonist

<220>  
<221> VARIANT  
<222> (1)  
<223> Xaa at position 1 = 2,3-diamino propionic acid  
(2,3-diaP)

<400> 59  
Xaa Leu Leu Gly Lys Lys  
1 5

<210> 60  
<211> 2732  
<212> DNA  
<213> Mus musculus

<220>  
<221> CDS  
<222> (73)..(1269)  
<223> C140 receptor, cDNA and deduced protein sequences

<400> 60  
ccctgtgctc agagtagggc tccgagtttc gaaccactgg tggcggattg cccgcccgcc 60

ccacgtccgg gg atg cga agt ctc agc ctg gcg tgg ctg ctg gga ggt atc 111  
Met Arg Ser Leu Ser Leu Ala Trp Leu Leu Gly Gly Ile  
1 5 10

acc ctt ctg gcg gcc tcg gtc tcc tgc agc cgg acc gag aac ctt gca 159  
Thr Leu Leu Ala Ala Ser Val Ser Cys Ser Arg Thr Glu Asn Leu Ala  
15 20 25

ccg gga cgc aac aac agt aaa gga aga agt ctt att ggc aga tta gaa 207  
Pro Gly Arg Asn Asn Ser Lys Gly Arg Ser Leu Ile Gly Arg Leu Glu  
30 35 40 45

acc cag cct cca atc act ggg aaa ggg gtt ccg gta gaa cca ggc ttt 255  
Thr Gln Pro Pro Ile Thr Gly Lys Gly Val Pro Val Glu Pro Gly Phe  
50 55 60

tcc atc gat gag ttc tct gcg tcc atc ctc acc ggg aag ctg acc acg 303  
Ser Ile Asp Glu Phe Ser Ala Ser Ile Leu Thr Gly Lys Leu Thr Thr  
65 70 75

gtc ttt ctt ccg gtc gtc tac att att gtg ttt gtg att ggt ttg ccc 351  
Val Phe Leu Pro Val Val Tyr Ile Ile Val Phe Val Ile Gly Leu Pro  
80 85 90

agt aat ggc atg gcc ctc tgg atc ttc ctt ttc cga acg aag aag aaa 399  
Ser Asn Gly Met Ala Leu Trp Ile Phe Leu Phe Arg Thr Lys Lys Lys  
95 100 105

cac ccc gcc gtg att tac atg gcc aac ctg gcc ttg gcc gac ctc ctc 447  
His Pro Ala Val Ile Tyr Met Ala Asn Leu Ala Leu Ala Asp Leu Leu  
110 115 120 125

tct gtc atc tgg ttc ccc ctg aag atc tcc tac cac cta cat ggc aac 495  
Ser Val Ile Trp Phe Pro Leu Lys Ile Ser Tyr His Leu His Gly Asn  
130 135 140

aac tgg gtc tac ggg gag gcc ctg tgc aag gtg ctc att ggc ttt ttc 543  
Asn Trp Val Tyr Gly Glu Ala Leu Cys Lys Val Leu Ile Gly Phe Phe  
145 150 155

tat ggt aac atg tat tgc tcc atc ctc ttc atg acc tgc ctc agc gtg 591  
Tyr Gly Asn Met Tyr Cys Ser Ile Leu Phe Met Thr Cys Leu Ser Val  
160 165 170

cag agg tac tgg gtg atc gtg aac ccc atg gga cac ccc agg aag aag 639  
Gln Arg Tyr Trp Val Ile Val Asn Pro Met Gly His Pro Arg Lys Lys  
175 180 185

gca aac atc gcc gtt ggc gtc tcc ttg gca atc tgg ctc ctg att ttt 687  
Ala Asn Ile Ala Val Gly Val Ser Leu Ala Ile Trp Leu Leu Ile Phe  
190 195 200 205

ctg gtc acc atc cct ttg tat gtc atg aag cag acc atc tac att cca 735  
Leu Val Thr Ile Pro Leu Tyr Val Met Lys Gln Thr Ile Tyr Ile Pro  
210 215 220

gca ttg aac atc acc acc tgt cac gat gtg ctg cct gag gag gta ttg 783

Ala Leu Asn Ile Thr Thr Cys His Asp Val Leu Pro Glu Glu Val Leu  
225 230 235

gtg ggg gac atg ttc aat tac ttc ctc tca ctg gcc att gga gtc ttc 831  
Val Gly Asp Met Phe Asn Tyr Phe Leu Ser Leu Ala Ile Gly Val Phe  
240 245 250

ctg ttc ccg gcc ctc ctt act gca tct gcc tac gtg ctc atg atc aag 879  
Leu Phe Pro Ala Leu Leu Thr Ala Ser Ala Tyr Val Leu Met Ile Lys  
255 260 265

acg ctc cgc tct tct gct atg gat gaa cac tca gag aag aaa agg cag 927  
Thr Leu Arg Ser Ser Ala Met Asp Glu His Ser Glu Lys Lys Arg Gln  
270 275 280 285

agg gct atc cga ctc atc atc acc gtg ctg gcc atg tac ttc atc tgc 975  
Arg Ala Ile Arg Leu Ile Ile Thr Val Leu Ala Met Tyr Phe Ile Cys  
290 295 300

ttt gct cct agc aac ctt ctg ctc gta gtg cat tat ttc cta atc aaa 1023  
Phe Ala Pro Ser Asn Leu Leu Leu Val Val His Tyr Phe Leu Ile Lys  
305 310 315

acc cag agg cag agc cac gtc tac gcc ctc tac ctt gtc gcc ctc tgc 1071  
Thr Gln Arg Gln Ser His Val Tyr Ala Leu Tyr Leu Val Ala Leu Cys  
320 325 330

ctg tcg acc ctc aac agc tgc ata gac ccc ttt gtc tat tac ttt gtc 1119  
Leu Ser Thr Leu Asn Ser Cys Ile Asp Pro Phe Val Tyr Tyr Phe Val  
335 340 345

tca aaa gat ttc agg gat cac gcc aga aac gcg ctc ctc tgc cga agt 1167  
Ser Lys Asp Phe Arg Asp His Ala Arg Asn Ala Leu Leu Cys Arg Ser  
350 355 360 365

gtc cgc act gtg aat cgc atg caa atc tcg ctc agc tcc aac aag ttc 1215  
Val Arg Thr Val Asn Arg Met Gln Ile Ser Leu Ser Ser Asn Lys Phe  
370 375 380

tcc agg aag tcc ggc tcc tac tct tca agc tca acc agt gtt aaa acc 1263  
Ser Arg Lys Ser Gly Ser Tyr Ser Ser Ser Ser Thr Ser Val Lys Thr  
385 390 395

tcc tac tgagctgtac ctgaggatgt caagcctgct tgatgatgat gatgatgatg 1319  
Ser Tyr

gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gcacccgtgt gtgagtgcgt 1379

ggtagggata caccaacatg gatggggctg tcatttccta tccaagctgt ctgtctctgc 1439

accaatcaca agcatgcagc tctccccagg attgacagaa gcctcctcct ttgcatgaga 1499

acagtcttcc actctgatga aaagcatcag tatcagaaac tgaaacgaac tgagaggagc 1559

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acaaaaacta cacctggcaa gaaggctaag actctctgaa atgcttcctt tttccatctg 1679

gagttcgtct cggccttggt caggacctga ggccctggta gagcttcagt ccagttgatt 1739  
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 acaaacctta gtgatgactg cagacacaga accatggagc tgagcctgct tctgcttgcc 2039  
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 tggtcagttt atgatgaatt tgcctattgg tttattggga ttttcagttc ctttattact 2159  
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 aataaaattt ttggtttttt gggtttttta cttgggccaa ctacaaatac tgcttaggtt 2279  
 tttttctaac ttaattgtta actacatcat gtgaacttaa gacattttca tgataaagca 2339  
 ttactgtagt gtcagttttc cctcatcctc gatcatagtc cttcccgtga agcagggccc 2399  
 ttcccctccc ccccctttgc cgtttccctc ccaccagat agtccccctg tctgctttaa 2459  
 cctaccagtt agtattttat aaaaacagat cattggaata tttattatca gttttgttca 2519  
 cttgttatca gttttgttca ctaatttgtc caataatgga attaacgtct tctcatctgt 2579  
 ttgaggaaga tctgaaacaa ggggccattg caggagtaca tggctccagg cttactttat 2639  
 atactgcctg tatttgtggc tttaaaaaaa tgacctgtgt atatgaatgc tttataaata 2699  
 aataatgcat gaactttaaa aaaaaaaaaa aaa 2732

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 <211> 399  
 <212> PRT  
 <213> Mus musculus

<400> 61  
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 Ala Ala Ser Val Ser Cys Ser Arg Thr Glu Asn Leu Ala Pro Gly Arg  
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 Asn Asn Ser Lys Gly Arg Ser Leu Ile Gly Arg Leu Glu Thr Gln Pro  
 35 40 45  
 Pro Ile Thr Gly Lys Gly Val Pro Val Glu Pro Gly Phe Ser Ile Asp  
 50 55 60  
 Glu Phe Ser Ala Ser Ile Leu Thr Gly Lys Leu Thr Thr Val Phe Leu

65	70					75					80				
Pro	Val	Val	Tyr	Ile	Ile	Val	Phe	Val	Ile	Gly	Leu	Pro	Ser	Asn	Gly
				85					90					95	
Met	Ala	Leu	Trp	Ile	Phe	Leu	Phe	Arg	Thr	Lys	Lys	Lys	His	Pro	Ala
			100					105					110		
Val	Ile	Tyr	Met	Ala	Asn	Leu	Ala	Leu	Ala	Asp	Leu	Leu	Ser	Val	Ile
		115					120					125			
Trp	Phe	Pro	Leu	Lys	Ile	Ser	Tyr	His	Leu	His	Gly	Asn	Asn	Trp	Val
	130					135					140				
Tyr	Gly	Glu	Ala	Leu	Cys	Lys	Val	Leu	Ile	Gly	Phe	Phe	Tyr	Gly	Asn
145					150					155					160
Met	Tyr	Cys	Ser	Ile	Leu	Phe	Met	Thr	Cys	Leu	Ser	Val	Gln	Arg	Tyr
				165					170					175	
Trp	Val	Ile	Val	Asn	Pro	Met	Gly	His	Pro	Arg	Lys	Lys	Ala	Asn	Ile
			180					185					190		
Ala	Val	Gly	Val	Ser	Leu	Ala	Ile	Trp	Leu	Leu	Ile	Phe	Leu	Val	Thr
		195					200					205			
Ile	Pro	Leu	Tyr	Val	Met	Lys	Gln	Thr	Ile	Tyr	Ile	Pro	Ala	Leu	Asn
	210					215					220				
Ile	Thr	Thr	Cys	His	Asp	Val	Leu	Pro	Glu	Glu	Val	Leu	Val	Gly	Asp
225					230					235					240
Met	Phe	Asn	Tyr	Phe	Leu	Ser	Leu	Ala	Ile	Gly	Val	Phe	Leu	Phe	Pro
				245					250					255	
Ala	Leu	Leu	Thr	Ala	Ser	Ala	Tyr	Val	Leu	Met	Ile	Lys	Thr	Leu	Arg
			260					265					270		
Ser	Ser	Ala	Met	Asp	Glu	His	Ser	Glu	Lys	Lys	Arg	Gln	Arg	Ala	Ile
		275					280					285			
Arg	Leu	Ile	Ile	Thr	Val	Leu	Ala	Met	Tyr	Phe	Ile	Cys	Phe	Ala	Pro
	290					295					300				
Ser	Asn	Leu	Leu	Leu	Val	Val	His	Tyr	Phe	Leu	Ile	Lys	Thr	Gln	Arg
305					310					315					320
Gln	Ser	His	Val	Tyr	Ala	Leu	Tyr	Leu	Val	Ala	Leu	Cys	Leu	Ser	Thr
				325					330					335	
Leu	Asn	Ser	Cys	Ile	Asp	Pro	Phe	Val	Tyr	Tyr	Phe	Val	Ser	Lys	Asp
			340					345					350		
Phe	Arg	Asp	His	Ala	Arg	Asn	Ala	Leu	Leu	Cys	Arg	Ser	Val	Arg	Thr
		355					360					365			
Val	Asn	Arg	Met	Gln	Ile	Ser	Leu	Ser	Ser	Asn	Lys	Phe	Ser	Arg	Lys

370 375 380  
 Ser Gly Ser Tyr Ser Ser Ser Ser Thr Ser Val Lys Thr Ser Tyr  
 385 390 395

<210> 62  
 <211> 1414  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (50)..(1240)  
 <223> C140 receptor, cDNA and deduced protein sequences

<400> 62  
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 Met Arg Ser  
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ccc agc gcg gcg tgg ctg ctg ggg gcc gcc atc ctg cta gca gcc tct 106  
 Pro Ser Ala Ala Trp Leu Leu Gly Ala Ala Ile Leu Leu Ala Ala Ser  
 5 10 15

ctc tcc tgc agt ggc acc atc caa gga acc aat aga tcc tct aaa gga 154  
 Leu Ser Cys Ser Gly Thr Ile Gln Gly Thr Asn Arg Ser Ser Lys Gly  
 20 25 30 35

aga agc ctt att ggt aag gtt gat ggc aca tcc cac gtc act gga aaa 202  
 Arg Ser Leu Ile Gly Lys Val Asp Gly Thr Ser His Val Thr Gly Lys  
 40 45 50

gga gtt aca gtt gaa aca gtc ttt tct gtg gat gag ttt tct gca tct 250  
 Gly Val Thr Val Glu Thr Val Phe Ser Val Asp Glu Phe Ser Ala Ser  
 55 60 65

gtc ctc gct gga aaa ctg acc act gtc ttc ctt cca att gtc tac aca 298  
 Val Leu Ala Gly Lys Leu Thr Thr Val Phe Leu Pro Ile Val Tyr Thr  
 70 75 80

att gtg ttt gcg gtg ggt ttg cca agt aac ggc atg gcc cta tgg gtc 346  
 Ile Val Phe Ala Val Gly Leu Pro Ser Asn Gly Met Ala Leu Trp Val  
 85 90 95

ttt ctt ttc cga act aag aag aag cac cct gct gtg att tac atg gcc 394  
 Phe Leu Phe Arg Thr Lys Lys Lys His Pro Ala Val Ile Tyr Met Ala  
 100 105 110 115

aat ctg gcc ttg gct gac ctc ctc tct gtc atc tgg ttc ccc ttg aag 442  
 Asn Leu Ala Leu Ala Asp Leu Leu Ser Val Ile Trp Phe Pro Leu Lys  
 120 125 130

att gcc tat cac ata cat ggc aac aac tgg att tat ggg gaa gct ctt 490  
 Ile Ala Tyr His Ile His Gly Asn Asn Trp Ile Tyr Gly Glu Ala Leu  
 135 140 145



tgt aat gtg ctt att ggc ttt ttc tat cgc aac atg tac tgt tcc att	538
Cys Asn Val Leu Ile Gly Phe Phe Tyr Gly Asn Met Tyr Cys Ser Ile	
150 155 160	
ctc ttc atg acc tgc ctc agt gtg cag agg tat tgg gtc atc gtg aac	586
Leu Phe Met Thr Cys Leu Ser Val Gln Arg Tyr Trp Val Ile Val Asn	
165 170 175	
ccc atg ggg cac tcc agg aag aag gca aac att gcc att ggc atc tcc	634
Pro Met Gly His Ser Arg Lys Lys Ala Asn Ile Ala Ile Gly Ile Ser	
180 185 190 195	
ctg gca ata tgg ctg ctg act ctg ctg gtc acc atc cct ttg tat gtc	682
Leu Ala Ile Trp Leu Leu Thr Leu Leu Val Thr Ile Pro Leu Tyr Val	
200 205 210	
gtg aag cag acc atc ttc att cct gcc ctg aac atc acg acc tgt cat	730
Val Lys Gln Thr Ile Phe Ile Pro Ala Leu Asn Ile Thr Thr Cys His	
215 220 225	
gat gtt ttg cct gag cag ctc ttg gtg gga gac atg ttc aat tac ttc	778
Asp Val Leu Pro Glu Gln Leu Leu Val Gly Asp Met Phe Asn Tyr Phe	
230 235 240	
ctc tct ctg gcc att ggg gtc ttt ctg ttc cca gcc ttc ctc aca gcc	826
Leu Ser Leu Ala Ile Gly Val Phe Leu Phe Pro Ala Phe Leu Thr Ala	
245 250 255	
tct gcc tat gtg ctg atg atc aga atg ctg cga tct tct gcc atg gat	874
Ser Ala Tyr Val Leu Met Ile Arg Met Leu Arg Ser Ser Ala Met Asp	
260 265 270 275	
gaa aac tca gag aag aaa agg aag agg gcc atc aaa ctc att gtc act	922
Glu Asn Ser Glu Lys Lys Arg Lys Arg Ala Ile Lys Leu Ile Val Thr	
280 285 290	
gtc ctg ggc atg tac ctg atc tgc ttc act cct agt aac ctt ctg ctt	970
Val Leu Gly Met Tyr Leu Ile Cys Phe Thr Pro Ser Asn Leu Leu Leu	
295 300 305	
gtg gtg cat tat ttt ctg att aag agc cag ggc cag agc cat gtc tat	1018
Val Val His Tyr Phe Leu Ile Lys Ser Gln Gly Gln Ser His Val Tyr	
310 315 320	
gcc ctg tac att gta gcc ctc tgc ctc tct acc ctt aac agc tgc atc	1066
Ala Leu Tyr Ile Val Ala Leu Cys Leu Ser Thr Leu Asn Ser Cys Ile	
325 330 335	
gac ccc ttt gtc tat tac ttt gtt tca cat gat ttc agg gat cat gca	1114
Asp Pro Phe Val Tyr Tyr Phe Val Ser His Asp Phe Arg Asp His Ala	
340 345 350 355	
aag aac gct ctc ctt tgc cga agt gtc cgc act gta aag cag atg caa	1162
Lys Asn Ala Leu Leu Cys Arg Ser Val Arg Thr Val Lys Gln Met Gln	
360 365 370	

gta ccc ctc acc tca aag aaa cac tcc agg aaa tcc agc tct tac tct 1210  
 Val Pro Leu Thr Ser Lys Lys His Ser Arg Lys Ser Ser Ser Tyr Ser  
                   375                  380                  385

tca agt tca acc act gtt aag acc tcc tat tgagttttcc aggtcctcag 1260  
 Ser Ser Ser Thr Thr Val Lys Thr Ser Tyr  
                   390                  395

atgggaattg cacagtagga tgtggaacct gtttaatgtt atgaggacgt gtctgttatt 1320

tccggatcca gatcttatta aagcagaact tggtttattgc agcttataat gggtacaaat 1380

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<210> 63

<211> 397

<212> PRT

<213> Homo sapiens

<400> 63

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Ala Ala Ser Leu Ser Cys Ser Gly Thr Ile Gln Gly Thr Asn Arg Ser  
                   20                  25                  30

Ser Lys Gly Arg Ser Leu Ile Gly Lys Val Asp Gly Thr Ser His Val  
                   35                  40                  45

Thr Gly Lys Gly Val Thr Val Glu Thr Val Phe Ser Val Asp Glu Phe  
                   50                  55                  60

Ser Ala Ser Val Leu Ala Gly Lys Leu Thr Thr Val Phe Leu Pro Ile  
   65                  70                  75                  80

Val Tyr Thr Ile Val Phe Ala Val Gly Leu Pro Ser Asn Gly Met Ala  
                   85                  90                  95

Leu Trp Val Phe Leu Phe Arg Thr Lys Lys Lys His Pro Ala Val Ile  
                   100                  105                  110

Tyr Met Ala Asn Leu Ala Leu Ala Asp Leu Leu Ser Val Ile Trp Phe  
                   115                  120                  125

Pro Leu Lys Ile Ala Tyr His Ile His Gly Asn Asn Trp Ile Tyr Gly  
                   130                  135                  140

Glu Ala Leu Cys Asn Val Leu Ile Gly Phe Phe Tyr Gly Asn Met Tyr  
   145                  150                  155                  160

Cys Ser Ile Leu Phe Met Thr Cys Leu Ser Val Gln Arg Tyr Trp Val  
                   165                  170                  175

Ile Val Asn Pro Met Gly His Ser Arg Lys Lys Ala Asn Ile Ala Ile  
                   180                  185                  190

Gly Ile Ser Leu Ala Ile Trp Leu Leu Thr Leu Leu Val Thr Ile Pro  
 195 200 205  
 Leu Tyr Val Val Lys Gln Thr Ile Phe Ile Pro Ala Leu Asn Ile Thr  
 210 215 220  
 Thr Cys His Asp Val Leu Pro Glu Gln Leu Leu Val Gly Asp Met Phe  
 225 230 235 240  
 Asn Tyr Phe Leu Ser Leu Ala Ile Gly Val Phe Leu Phe Pro Ala Phe  
 245 250 255  
 Leu Thr Ala Ser Ala Tyr Val Leu Met Ile Arg Met Leu Arg Ser Ser  
 260 265 270  
 Ala Met Asp Glu Asn Ser Glu Lys Lys Arg Lys Arg Ala Ile Lys Leu  
 275 280 285  
 Ile Val Thr Val Leu Gly Met Tyr Leu Ile Cys Phe Thr Pro Ser Asn  
 290 295 300  
 Leu Leu Leu Val Val His Tyr Phe Leu Ile Lys Ser Gln Gly Gln Ser  
 305 310 315 320  
 His Val Tyr Ala Leu Tyr Ile Val Ala Leu Cys Leu Ser Thr Leu Asn  
 325 330 335  
 Ser Cys Ile Asp Pro Phe Val Tyr Tyr Phe Val Ser His Asp Phe Arg  
 340 345 350  
 Asp His Ala Lys Asn Ala Leu Leu Cys Arg Ser Val Arg Thr Val Lys  
 355 360 365  
 Gln Met Gln Val Pro Leu Thr Ser Lys Lys His Ser Arg Lys Ser Ser  
 370 375 380  
 Ser Tyr Ser Ser Ser Ser Thr Thr Val Lys Thr Ser Tyr  
 385 390 395

<210> 64  
 <211> 425  
 <212> PRT  
 <213> Homo sapiens

<400> 64  
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 Gly Pro Leu Leu Ser Ala Arg Thr Arg Ala Arg Arg Pro Glu Ser Lys  
 20 25 30  
 Ala Thr Asn Ala Thr Leu Asp Pro Arg Ser Phe Leu Leu Arg Asn Pro  
 35 40 45  
 Asn Asp Lys Tyr Glu Pro Glu Trp Glu Asp Glu Glu Lys Asn Glu Ser  
 50 55 60

Gly	Leu	Thr	Glu	Tyr	Arg	Leu	Val	Ser	Ile	Asn	Lys	Ser	Ser	Pro	Leu	65	70	75	80
Gln	Lys	Gln	Leu	Pro	Ala	Phe	Ile	Ser	Glu	Asp	Ala	Ser	Gly	Tyr	Leu	85	90	95	
Thr	Ser	Ser	Trp	Leu	Thr	Leu	Phe	Val	Pro	Ser	Val	Tyr	Thr	Gly	Val	100	105	110	
Phe	Val	Val	Ser	Leu	Pro	Leu	Asn	Ile	Met	Ala	Ile	Val	Val	Phe	Ile	115	120	125	
Leu	Lys	Met	Lys	Val	Lys	Lys	Pro	Ala	Val	Val	Tyr	Met	Leu	His	Leu	130	135	140	
Ala	Thr	Ala	Asp	Val	Leu	Phe	Val	Ser	Val	Leu	Pro	Phe	Lys	Ile	Ser	145	150	155	160
Tyr	Tyr	Phe	Ser	Gly	Ser	Asp	Trp	Gln	Phe	Gly	Ser	Glu	Leu	Cys	Arg	165	170	175	
Phe	Val	Thr	Ala	Ala	Phe	Tyr	Cys	Asn	Met	Tyr	Ala	Ser	Ile	Leu	Leu	180	185	190	
Met	Thr	Val	Ile	Ser	Ile	Asp	Arg	Phe	Leu	Ala	Val	Val	Tyr	Pro	Met	195	200	205	
Gln	Ser	Leu	Ser	Trp	Arg	Thr	Leu	Gly	Arg	Ala	Ser	Phe	Thr	Cys	Leu	210	215	220	
Ala	Ile	Trp	Ala	Leu	Ala	Ile	Ala	Gly	Val	Val	Pro	Leu	Val	Leu	Lys	225	230	235	240
Glu	Gln	Thr	Ile	Gln	Val	Pro	Gly	Leu	Asn	Ile	Thr	Thr	Cys	His	Asp	245	250	255	
Val	Leu	Asn	Glu	Thr	Leu	Leu	Glu	Gly	Tyr	Tyr	Ala	Tyr	Tyr	Phe	Ser	260	265	270	
Ala	Phe	Ser	Ala	Val	Phe	Phe	Phe	Val	Pro	Leu	Ile	Ile	Ser	Thr	Val	275	280	285	
Cys	Tyr	Val	Ser	Ile	Ile	Arg	Cys	Leu	Ser	Ser	Ser	Ala	Val	Ala	Asn	290	295	300	
Arg	Ser	Lys	Lys	Ser	Arg	Ala	Leu	Phe	Leu	Ser	Ala	Ala	Val	Phe	Cys	305	310	315	320
Ile	Phe	Ile	Ile	Cys	Phe	Gly	Pro	Thr	Asn	Val	Leu	Leu	Ile	Ala	His	325	330	335	
Tyr	Ser	Phe	Leu	Ser	His	Thr	Ser	Thr	Thr	Glu	Ala	Ala	Tyr	Phe	Ala	340	345	350	
Tyr	Leu	Leu	Cys	Val	Cys	Val	Ser	Ser	Ile	Ser	Ser	Cys	Ile	Asp	Pro	355	360	365	

Leu Ile Tyr Tyr Tyr Ala Ser Ser Glu Cys Gln Arg Tyr Val Tyr Ser  
370 375 380

Ile Leu Cys Cys Lys Glu Ser Ser Asp Pro Ser Ser Tyr Asn Ser Ser  
385 390 395 400

Gly Gln Leu Met Ala Ser Lys Met Asp Thr Cys Ser Ser Asn Leu Asn  
405 410 415

Asn Ser Ile Tyr Lys Lys Leu Leu Thr  
420 425